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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,010	12/31/2001	James Allen Cox	H0001575 (M&G) 13358.7US01	5683
23552	7590	11/06/2003	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			VY, HUNG T	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,010

Applicant(s)

COX, JAMES ALLEN

Examiner

Hung T Vy

Art Unit

2828

Ave

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. In response to the amendment filed on 09/18/2002, claims 1-28 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102 in view of the AIPA and H.R. 2215 that forms the basis for the rejections under this section made in the attached Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

3. Claims 1- 5 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Magnusson et al., U.S. Patent No. 5,216,680.

Regarding claims 1-5, Magnusson et al. discloses a tunable assembly, comprising: a laser (22); a mirror (28); and guided-mode grating resonant filter (10)(See column 3, line 54), said grating pivotably mounted between said laser and said mirror

Art Unit: 2828

wherein movement of said grating relative to said laser varies the wavelength of energy emitted from the laser (22)(see fig 1, 2 and 3), the mirror (28) is a highly reflective coating (See column 10, line 4), mirror (28 or 30) is positioned so that the energy emitted from said laser (110) and reflected from said guided-mode grating resonant filter (10) impinges upon said mirror (28 or 30)(See fig 1,2 and 3).

Claim Rejections - 35 U.S.C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Magnusson et al., U.S. patent No. 5,216,680 in view of Vilhelmsson et al., U.S. pub No. 2002/0024979 (patent is issued).

Regarding claims 6, 8-9, 16, 18, and 25-26, Magnusson et al. discloses all limitation of claim except for detector. However, Vilhelmsson et al. disclose a detector (385). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Magnusson et al. to have detector as taught by Vilhelmsson et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claims 7, and 17 Vilhelmsson et al. discloses a tunable assembly, further comprising a mirror (150) (See fig 1-3).

Regarding claims 10-15, 19-24, Vilhelmsson et al. discloses a tunable assembly, further comprising a detector and it is inherent the detector measures absorption of energy, transmission of energy, the grating is positioned above said laser (310), said assembly additionally comprises a cavity positioned beneath said laser, said detector (385) being positioned within said cavity (See fig 1-3), additionally comprising collimating optics (120) positioned between said laser (110) and said grating (130).

Regarding claims 27-28, Magnusson et al. discloses all limitation of device except for changing the angle of said guided-mode grating resonant filter changes the wavelength of the energy incident upon said detector. However, Vilhelmsson et al. discloses a tunable assembly comprising: a laser (310), a mirror (150), a waveguide (398), and grating (330) pivotably mounted above said laser (330), said grating cooperatively functioning with said laser (330) and said highly reflective mirror (150) transmitting energy emitted from said laser (330) to said detector (385), wherein changing the angle of said grating changes the wavelength of the energy incident upon said detector (385) (See fig 1-3), wave guide is an optical fiber (398) (See fig 3).

Citation of Pertinent References

Art Unit: 2828

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Hatori discloses Light wavelength Conversion Module, U.S. Application Patent No. 2001/0019563. (See filter 14).

The patent to Magnusson et al. discloses Vertical Cavity Laser and Laser Array Incorporating Guide-Mode-resonance effects and Method for Making the same, U.S. Patent No. 6,154,480.

Response to Arguments

6. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2828

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Hung T. Vy
Art Unit 2828
October 26, 2003